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# SOCIETY OF ARTS, MANUFACTURES, AND COMMERCE.

# ART-MANUFACTURES' INSTITUTE,

WITH

# ELEMENTARY DRAWING SCHOOLS.

### AT BRADFORD.

As the proceedings which have taken place at Bradford, in the proposed establishment of an Elementary Drawing School in that town, have appeared to the Council calculated to have an interest and application to other localities which may desire to adopt a system for improving arteducation, the Council have resolved that a report of the proceedings shall be printed for general circulation. As a proof that the welfare of the Society and the public appreciation of these its efforts to improve arteducation have an intimate and reciprocal connexion, the Council have the satisfaction of acquainting the Members that the visit to Bradford has been the means of inducing the present and late Mayors of the towns, and several of the most eminent merchants and manufacturers, of Bradford and Halifax, to seek to become members of the Society, and to aid in its career of public usefulness.

The Committee appointed by the Council to aid in carrying into effect the Elementary Drawing Schools proposed to be established in connexion with the Society, having requested a deputation, consisting of General Sir C. Pasley, K.C.B., Mr. H. Cole, C.B., and Mr. Owen Jones, to visit Bradford, these gentlemen proceeded there at their own expense, and two meetings were held at Bradford, on Monday, 2d February, for the purpose of hearing the views and explanatory statements of the Society of Arts, Manufactures, and Commerce, with reference to the proposal. Both

meetings were held in the theatre of the Mechanics' Institute; the first, at three o'clock in the afternoon, was attended by influential merchants and manufacturers connected with the trade of the district; and the second, at seven o'clock in the evening, was attended principally by the working classes and members of the Mechanics' Institute. Both meetings were convened by the Mayor (Samuel Smith, Esq.), in compliance with a requisition numerously signed. The following report is abridged from reports in the "Bradford Observer" and "Leeds Mercury:"—

The MAYOR, upon taking the chair, called upon the town clerk to read some letters which had been received. The first was from the Earl of Carlisle, regretting that in consequence of the opening of Parliament he was prevented from joining his colleagues (the deputation) at the meeting, and throwing out for consideration, whether the power of raising a rate under the Museum Bill might not be applied to the present object. The other letters, stating the same reason for their absence, were from Colonel Thompson, M.P., Robert Milligan, Esq., M.P., and Henry Edwards, Esq., M.P.

The Mayor then addressed the meeting. After briefly adverting to the object in view, his worship observed that this was a matter of great importance to the trade of Bradford, by which he meant the stuff trade, for which Bradford was the chief market and centre. The object in view was to improve as far as might be their present class of designs, and to carry the trade farther than it had hitherto been carried. (Hear, hear.) If they would keep up the present rate of progress, and their present position, they must set to work immediately to improve the style and patterns of their fancy fabrics; and this must be not only in form and design, but also in the combination of the colours employed; the latter might probably be reduced to a degree of certainty, and the former might be very much improved. (Hear, hear.) After some further remarks on the rise and progress of the Bradford trade—most of the leading articles in the market having sprung up within a few years—his worship said they need not feel discouraged, and concluded by referring the audience for further explanations to the deputation there present.

Mr. H. Cole, C.B., was received with applause on rising to address the meeting. He said that when he considered the position Bradford itself took in the Great Exhibition, in which it did five times more than its share of duty according to population, both in the space it occupied and in the exhibits it made, he felt quite sure that that town would be one of the first to initiate any movement arising as a legitimate consequence out of the Great Exhibition. (Hear, hear.) Now, amongst other things, the Exhibition taught us most emphatically this lesson beyond anything else, that an additional education in matters of art and industrial science was required; it showed, that many nations were so closely treading on our heels in various manufacturing products, that it became us to see how far we could avail ourselves of the advantages of science and the improvements of art in maintaining our position, and even extending our manufactures. (Hear, hear.) The Society of Arts, as they were most of them aware, had something to do with originating the Exhibition, therefore there was a legitimate connexion in their endeavour to carry out any lessons which the Exhibition taught. The Society of Arts had long felt that the whole question of art-education in this country depended not upon one class only, but upon the general and improved taste of all classes; and, before the advent of the Great Exhibition, it had been considered how they could best employ the aid of the Society in improving art-education in this country. When their worthy friend, Mr. Alderman Forbes, was in London,

he (Mr. Cole) learnt from him that Bradford would most probably be willing to attend to any suggestion to improve art-education, but he forgot to tell him that an Elementary Drawing School and even a School of Design existed in Bradford. They called it a School of Design, but it was not at all dependent on Government. He and his colleagues came down to endeavour to persuade them to establish an Elementary School, but he found one already established. which proved their earnest desire to encourage art-education in this district. (Hear, hear.) On his arrival here he found, too, that there was a strong feeling indeed that any school whatever should be rendered self-supporting. (Hear, hear.) There was a general admission that it would be necessary to have capital to give the School a fair start, just as in any business; but he found a doubt existing whether the only mode which then suggested itself, that of raising the money by a rate, was the proper one. There existing so earnest a desire for a general improvement in art-education, the problem necessary to be solved was, how they could raise an institution on the selfsupporting principle, and how they could induce the merchants, manufacturers, shopkeepers, artisans, and others, who had to do either directly with the manufacture of their fabrics, or indirectly in the consumption of them, to interest themselves in any scheme of art-education? They also found downstairs the manifestation of a desire to have a museum; they had figures of Venus and other castings, but he took leave to doubt whether they had any such practical bearing on their interests in the manufacture of damasks and other fabrics as some other things had. (Hear, hear.) Further, he knew the manufacturers sent to France and the Rhine for patterns of manufactures going on there, in order to get all the knowledge they could of their foreign competitors, still enough was not done to stimulate design at home. In order to do this they must have something else than casts of Venus and ancient architectural models, such as they had down-stairs. (Laughter.) And this brought him to the point of drawing from nature, and he thought it would be admitted that drawing from plants had a particular bearing upon the decoration of woven fabrics, already for the most part of a floral kind. Almost all the forms applied in the production of ornamental patterns for woven fabrics were derived not from anatomy, but from botany. (Hear.) Having five or six children of his own, he had found that from the very earliest period, the best way of teaching them how to see correctly was to give them the power of making a straight line, and to be able to represent forms correctly. There was scarcely anything to be done in the world which did not imply the necessity of seeing correctly, and this power of seeing correctly, he believed, was only to be attained by learning to draw. Whatever they might say about other education, he believed that drawing was of almost earlier importance than writing to the working classes, for after learning to draw correctly, they would sooner learn to write well. Their Elementary School (where they had sixty or seventy pupils) went somewhat in the right direction, but it wanted a great extension; he believed it did not go either sufficiently high or sufficiently low enough. The power of drawing was essential to manufacturers themselves and to their foremen. Any person who had to control anything of an ornamental character themselves, or pretended to direct others, should be able, at least, to draw straight lines, or he (Mr. Cole) should be very sceptical about the accuracy of his judgment. He did not, of course, expect rich manufacturers to go to school again, but if something could be devised which would draw their attention to the study of forms of beauty, a great improvement would follow. The result of all these considerations induced him to propose something more extensive than an Elementary Drawing School. He suggested that they should form "An Art-Manufactures' Institute, on a self-supporting and commercial principle." According to a prospectus which had been prepared (continued Mr. Cole) "the object of the institution is to provide a direct and indirect arteducation in Bradford, for its manufacturers, merchants, artisans, and all classes of its population; and to accomplish this by various means, to be so modified and arranged that they shall be attractive and useful to all." One point to aim at was to ascertain how it might be the interest of parties to

go along with them. They might preach to them as long as they pleased, but unless they touched their interest they would not get their co-operation. They might preach as long as they liked about the usefulness of art-education, and talk about its advantages, but they must make their institution so attractive that people would desire to be aiders and abettors of it. (Hear, hear.) The next point in the prospectus was this,-"A suitable building will have to be provided, which shall furnish space, 1st, for the collection, exhibition, and study of fine specimens of ornamental manufactures woven in all materials, which shall be calculated to afford suggestions for improving the staple manufactures of Bradford and its district, in respect both of the forms and the harmonious colours of patterns." This was sufficiently precise. When they had obtained all that was necessary for improving their designs in their manufactures of a direct sort, then they might go to other things of a less direct kind. Although he greatly admired the beauty and art in pagan gods and goddesses, he would caution them against beginning with Venus-statues, instead of getting those patterns and designs in which they all had a direct interest, and which people would certainly come to see and study. (Hear, hear.) He believed that a great part of the success of Bradford depended upon the way in which dyes were applied—(hear, hear)—and there were many interesting problems to be solved by science, such, for instance, as how they could raise the colours in their mixed fabrics to the point of delicacy acquired in higher class fabrics. In silks, for instance, colour was obtained with greater brilliancy than in any other materials, therefore they should in the collection of patterns not overlook examples in which colours were involved. (Hear, hear.) As he had mentioned, it was notorious that the manufacturers were in the habit of obtaining patterns from their neighbours and from foreign countries; in fact, everybody did this, though they did not like to talk about it. (Laughter.) But if they would try to acquire that kind of knowledge upon a system which a thorough art-education would give them, extend its limits, and try to produce the finest things in the world, he was sure they would, by combination amongst themselves, obtain their ends better than by the present system of sending elsewhere for patterns. (Hear, hear.) He next came to the plant question. The building should furnish space, "2d, for an ample collection of ornamental plants, especially illustrative of those forms and harmonies of colour useful to students and practical designers, and attractive at all seasons of the year to all persons, men, women, and children, although not directly students in art." Every gentleman who could afford it, and whose ground was ample enough, was delighted to have a green-house. (Hear, hear, and applause.) The erection of the Crystal Palace taught them, not only how individuals might have a green-house, but how they might have one for the masses. And he believed that the eyes of poor people, as well as those of the rich, might be taught to appreciate the beauties of nature. There was nothing half so fanciful in having a green-house for art-education as in having those statues down-stairs. (Hear, hear, and laughter.) He knew he was guilty of heresy in saying this, but he had an eye to what would be for their direct interest; and he believed that the cultivation of japonicas and magnolias, and even of orange-trees, would have a hundred times more practical effect, and be much more attractive for the people about Bradford, than the statues to which he alluded. The next use of this building was, "3d. To enable periodical lectures to be given on the use and application of the staple fabrics of Bradford and its district, for garments, hangings, &c.; also lectures on the principles of design illustrated in other woven fabrics, and on the suggestions afforded by the botanical collection for patterns." He thought in establishing this institution, they should exact from their master some kind of test that he really did know his business. He might be able to teach drawing, but if they wanted any one who was convey benefit to the pupils and the manufacturers, he must be more than a mere drawing-master; if he was ignorant he must get wiser, and if wise they should have the benefit of his wisdom. It was, therefore, most indispensable for them to have lectures; and their teacher must be able to talk and demonstrate to them in order to

ensure a practical application of art to the manufactures of the district. (Hear, hear.) Then came the next business, which was the principal object of the deputation coming down to Bradford,—that was the Drawing School. Here they stood on vantage ground. The deputation came to form a Drawing School, but on coming here they found one already existing, with a strong desire to have a better one. It was therefore intended in this new institution to provide—"4th. For Drawing Schools, especially elementary, to be founded in connexion with the Society of Arts, and on the principles promulgated by the Society; to be open to all classes, of both sexes, in the evening, at a very low charge, when they may be used by artisans, and in the morning at a higher charge, when they may be attended by the classes not engaged in workshops or manufactories." He thought a system might be devised, in which the artisans, and both boys and girls, might be taught at a very cheap rate. If they pleased the artisans might be induced to attend in the evening, and very great advantage would be derived from the richer classes attending in the morning themselves. He should expect to have the lessons very cheap in the evening, but not so cheap as that people would look upon them as a charity, for if so they would not value them properly. They must, however, begin low, and do just as manufacturers did in selling their goods—as the demand increased, they must get a better price, and thus make the institution selfsupporting. (Hear, hear.) He, for one, believed that no education would prosper until it was made to pay its way thoroughly. He did not believe in any permanent effect from begging-boxes and alms-giving; but he would look upon education as upon a commercial business; it must pay itself, and leave profit, before any great good could be done permanently. As he had said, they must make the charge for these evening scholars as cheap as possible, say a penny a lesson, which would be more efficacious than if they charged 1s. 6d. a month or quarter. If they got a really good master, who was able to point out how every one—a sempstress, for instance — would be benefited by being taught to draw, they would not want pupils; and as to the morning class, as it would be a little more select, and consist of persons willing to pay a little more, they might for a good drawing lesson charge perhaps 3d. or more, and after a while those who attended in the evening should pay more. A penny was marvellously cheap for a drawing lesson, if it was worth anything at all. (Hear, hear.) In London they were often contented to pay a guinea a lesson. Mr. Cole next stated that the Society of Arts would lend them its aid in furnishing them with colours and instruments at a cheap rate, they having already, by offering a premium for a box of colours, had one manufactured to sell at 1s., equal to what had formerly been sold at 7s., 8s., or 10s. in London. In conclusion, he expressed a strong opinion that the new institution might, in such a town as Bradford, with a population of 105,000, be made not only self-supporting, but pay a good rate of interest to the shareholders. If the population of Bradford, amounting to 105,000, would make a visit once a-year at a charge of 1d., the proceeds from this and other sources might be obtained sufficient to pay the expenses of the institution, and also 5 per cent on the capital laid out. (See Appendix B.) If their committee would go into this, they would see it was no chimera as to its payability. Of course it was possible to devise a good scheme which might not be carried out so as to pay, but then that was the fault of the management. If they succeeded, see what they would gain. They would prove to England that art-education might be made self-supporting; and their success would solve that great problem for which the public and Government had been battling for years, but which no one had heretofore succeeded in solving. (Hear, hear, and loud applause.)

Mr. Owen Jones said,—Mr. Cole had spoken to them of the lessons the Great Exhibition had afforded them, and they must all feel that the principal advantage they had derived from it was that they had learned their defects rather than their merits. He thought it was now generally admitted that the manufacturers of England had not been so advanced in the art of design as many of the nations of the Continent; they might in some instances, be very

nearly upon a par with some, but they were certainly found, in common with the rest of Europe, to be behind other nations which had hitherto been considered almost barbarians. He believed that the notion which was first propounded by artists and intelligent people was ultimately adopted almost universally by the general public, namely, that of the goods which graced the Great Exhibition, the productions from India, Tunis, and other Eastern nations, were very superior in point of design and harmony of colour to those which came even from France or Germany. One of the great reasons of this appeared to be the influence of Mahomedanism, the people working out that system of art which they had had handed down to them by tradition as connected with their religion. On the other hand, in Europe, since the invention of printing, since articles of art have been manufactured rather than made, there had been a gradual degradation, so to speak, of the art of design in the manufacture of furniture, in tapestry, carpets, and articles of all descriptions. They appeared to be going upon a very vicious rule throughout Europe. The designs made in one country are introduced into another, and then were sent back again as new ones; this sort of thing went on, and no real progress in the art of design was made. (Hear.) The moment now seemed to have arrived when people generally were satisfied that some change must take place; they were perfectly tired and weary of seeing the same things over and over again in designs and patterns, without any meaning at all; taste seemed to be lost sight of altogether. This was applicable not to this country alone, but to the whole of Europe. Eastern nations had a peculiar feature about them; their art was still the expression of their religious feelings. This country should not copy what they did, any more than what the French and other European nations did, but they might follow out the principles which pervade all they did, and make designs in harmony with their habits of thought as they did in connexion with their nationality. (Hear.) It seemed to him that an institution of this kind would be of the greatest use. (Hear.) If they were to have a collection of designs from India, and all those other countries where, in his opinion, designs were more perfect, with records of the best productions of past ages, a theory or principle might be evolved, by which they would learn what to copy and also what to avoid, which would be of great importance. If this course was adopted throughout England, it would become national in its bearing and effect. From the little he had seen at Bradford, he observed that the goods chiefly sold there were plain goods. What are called fancy goods were not so much sold, the reason being, that people were anxious to have things of good taste; they had found great difficulty in getting them, hence they had been obliged to fall back on simple tints. Public fashion appeared to run alternately upon plain and fancy goods in a kind of wave; plain goods satisfied only the taste for colour, the pleasure to be derived from form was totally neglected. The public bear with this as long as they can, and by degrees return to fancy goods for a while, till they are again driven back by the unsatisfactory result. It seemed to him that success would be found in a mixed system; the fancy goods should be so treated in the arrangement of form and colour that they should have the advantages which the plain goods possessed, when seen at a distance, but which should have the additional attraction of form and colour for a closer inspection. Only look at the perfection they had arrived at in India. If they took up a piece of India silk of the most elaborate manufacture and design, and looked at it from a distance, they would find the form and colour so nicely balanced that it would look like the bloom upon a peach. They all knew the quiet effect of a Turkey carpet, and yet there was the greatest design about it. But this was not the case with common carpets, in which they often find great masses of red, and other strong colours, cut in halves by the furniture placed upon it: or we are made to walk over beds of flowers and forests of tropical plants and trees. There was a similar defect in paper-hangings, which were often made to look full of holes in the wall. (Hear.) Ladies' dresses, too, were either striped like a tiger or spotted like a leopard. All these sort of things had the effect of carrying the public back to plain tints. Now by study this might be avoided, and they might produce such a beauty in design, and such a harmony in colouring, as would be of the greatest service to their trade in that district, and enable them to reap the greatest advantages. (Loud cheers.)

Sir C. Pasley said, that when he first entered the service as an officer of the Royal Engineers, the corps stood very low in public estimation even in our own army, whilst the French engineers were looked up to as being superior to those of all other nations. When he came to be employed on actual service, the cause of the depressed state of the corps soon became apparent. Never having been instructed in any of the practical duties of engineers in the field, and their theoretical education also having been at that time greatly neglected, the officers had no knowledge of military mining, or of any other operations of a siege, excepting what they were able to pick up from the study of French authors on these subjects, there being at that time none of our own; so that when he was first called upon to make a battery, he would not have known what to do, but for the rules laid down in a French military book. In his first attempt to blow up a bridge in Sir John Moore's retreat in Spain, he was unsuccessful, partly owing to a want of those means which he considered necessary at the time, but still more from a want of that practical knowledge which would have suggested simpler expedients equally good. In fact, the only stone bridge effectually destroyed in that retreat was by a young officer of promising abilities, who lost his own life from not understanding the very simple precautions necessary for securing the safety of the person who fires a mine. Another officer lost his life from the same cause two years afterwards in Portugal, in blowing up part of the works of Almeida. Hence, though the British infantry and artillery were at that time well disciplined, and a match for any troops in battle, as they had often proved, the British army was then perfectly inefficient for a war of sieges, because the engineers, who were called upon to direct the working parties furnished by the troops of the line, to throw up parallels, approaches, and batteries under an enemy's fire, had no practical knowledge themselves when first sent on service, so that this imperfect system could only be compared to the blind leading the blind. Another defect was no less deeply felt, namely, the inefficient state of the non-commissioned officers and soldiers of the Engineer department, at that time known by the name of Royal Military Artificers, who considered themselves rather as civilians than soldiers, being destitute of esprit de corps, thinking it a hardship to work at anything but their own trades, as masons, carpenters, blacksmiths, &c., and who, though Cornish or North-country miners formed a part of them, were completely ignorant of military mining, which is an art in itself. Hence, as 2000 workmen may be required for the first night's operations in a great siege, to be superintended by, perhaps, ten officers of Engineers, it may easily be conceived that one Engineer officer, however skilful, cannot possibly direct 200 men to advantage without having well-instructed non-commissioned officers and soldiers, forming an integral part of his own corps, to assist him as overseers and foremen, in marking out and seeing the details of the work properly executed. These defects,—which were strongly felt in the early part of the Peninsular war, having led to lamentable failures and loss of lives, especially of Engineer officers, who are always more exposed than any others in a war of sieges, which in itself, had they only possessed the means of success, would not have been a subject of regret to the corps, because the greater the danger of any service, the greater the honour,—induced the ministry of that day, in compliance with the general wish of the corps, supported by the powerful influence of the Duke of Wellington, to form an establishment at Chatham for the instruction of the junior officers of the Royal Engineers and the non-commissioned officers and soldiers of the department, in all the duties of engineers in the field, of which he (Sir C. Pasley), at that time a captain, had the honour of being appointed the director by Lord Mulgrave, then Master-General of the Ordnance, on the recommendation of General Mann, the Inspector-General of Fortifications. Having seen the inefficiency of the men in those sieges in which he himself had served, owing to their ignorance, he not only instructed them practically in siege operations, military mining, &c., but established regimental schools,

in which they were taught practical geometry and elementary fortification,a system which was at first rather tolerated than approved, because it was apprehended that it might render them conceited and insubordinate as soldiers and idle as workmen. The contrary effect has, however, resulted. and the benefits of the system soon became apparent; for, though their instruction only commenced in May 1812, two hundred and fifty well-trained Sappers and Miners served at the siege of St. Sebastian in August 1813, and no less than four hundred were assembled for the siege of Bayonne in February 1814, an operation which was suspended and became unnecessary, in consequence of the surrender of Paris and submission of the French to the Allied Armies. In first attempting to establish the regimental schools of the Royal Sappers and Miners, after instructing one or two individuals of the most promising abilities, books and manuscripts were put into their hands, and they were employed to teach the others; but although they themselves perfectly understood what they had learned, it was found that they were incapable of communicating the knowledge they had acquired, from want of experience in teaching; and as the expense of obtaining regular masters would have proved an insuperable difficulty, he (Sir C. Pasley) drew up a new course of Practical Geometry and of Elementary Fortification for this special purpose, in which everything that the teacher ought to say and do, and everything that his pupils had to do, was written down in words at length; and instead of one figure to each problem, as in the common books of geometry, all the successive steps necessary were illustrated by separate figures. This proved so far satisfactory, that any man of good abilities, who can read and write, is thus rendered capable of teaching a class of twenty or thirty men, or more; and one book in the hands of the teacher is sufficient for the instruction of the whole class, so that it offers the cheapest and most effective means of instruction, in a study so very useful not only to the soldiers of the Engineer department, but to young men intended for artisans, such as masons, carpenters, bricklayers, &c.; and after having thus made every man under his command at Chatham a teacher or a learner, it was found, contrary to the common opinion, that, in studies new to both, the privates from eighteen years of age to thirty, or upwards, learned everything with greater facility than boys enlisted as drummers or buglers. When the subject was first mentioned in the Society of Arts, it was naturally suggested that it might be desirable to print a smaller and cheaper edition than his (Sir C. Pasley's) work, which includes the practical geometry of conic sections and other branches, not absolutely necessary for the schools contemplated by the Council of the Society; but he explained, that having long ago paid for all the expenses of publication, the work was his own property, independent of booksellers, and he placed it entirely at the disposal of the Society for the schools patronised by them, and would have equal pleasure in giving as many copies as they required to the managers of any other schools for the improvement of the working classes. When the present edition, thus gratuitously offered for the benefit of such schools, shall be exhausted, it will be time enough to think of printing a new edition. Sir C. Pasley then explained, that the superior knowledge, of which practical geometry was the commencement, had afterwards been carried further in the corps, three companies of Sappers and Miners having been employed, under Colonel (now Major-General) Colby, at the suggestion of Colonel Sir William Reid, in the executive part of the survey of Ireland, one of the most accurate surveys ever executed; and they had since been, and were now employed in completing the survey of England, and commencing that of Scotland: and he also adverted to the zeal and good-will of the men, in cheerfully undertaking any work useful to the service, whether of skill or of labour; as, for example, at Spithead, where they not only prepared and fired the numerous charges for blowing up the wreck of the Royal George, varying from eighteen or twenty pounds to more than a ton weight of gunpowder, but took their share of every work necessary, whether in boats or at the capstan, and finally volunteered to act as helmet divers, in which they worked, at first in concert with the excellent, civil divers of Whitstable, who commenced that process, and afterwards carried it on exclusively by themselves during the last two years,—a duty requiring, not only the greatest skill and sagacity, but extraordinary physical powers, it being very trying to the constitution of men in general, under the great pressure of water at Spithead, at a depth of from thirteen to fifteen fathoms. Chiefly owing to the improvement of their minds by the system of instruction in the corps, though the pay of the non-commissioned officers and soldiers of the Royal Engineer department exceeds that of the Infantry, their character has so much improved, that, as compared with other regiments, they are second to none in discipline and regularity of conduct; and though, happily for the country, they have had no opportunity of distinguishing themselves amongst the armies of Europe since the year 1815, should their services once more be required, he is persuaded that the officers and soldiers of the Royal Engineer department are now equal to those of any other nation, and that they would be ready to meet the enemies of their Queen and country, either on the surface of the ground, as miners under the earth, or as divers at the bottom of the sea. (Loud applause.)

Titus Salt, Esq., rose amidst loud applause to move the first resolution. As a manufacturer engaged in the trade of this district, he would readily admit that improvement in the art of design and the arrangement of colour was much required. It was clearly shown in the Great Exhibition we were far behind many of our Continental neighbours. (Hear.) The trade of Bradford had progressed for many years past at a rapid rate; from the introduction of new materials, both vegetable and animal, and the combination of these, and the improvement in dyeing and finishing, the productions of this district had increased most rapidly, and obtained an immense circulation; but he (Mr. Salt) thought the time had now arrived when they should exert themselves to improve the beauty of their designs: for, unless they did so, they could not expect to maintain their present extensive manufactures. (Hear.) If they did this, he had no doubt they would continue to increase and progress as rapidly as they had done in years past. (Hear.) There was one part of this scheme now brought before them which exalted it in his estimation—it was to be self-supporting. (Hear.) He moved,—"That this Meeting fully recognises the great advantages derivable from a self-supporting institution, calculated to improve the art applied to the manufactures of Bradford and its neighbourhood, and the general taste of all classes; and especially of an elementary Drawing and Modelling School as an integral part of it, and in conjunction with the Council of the Society of Arts will take vigorous measures for giving effect to the same."

ROBT. MILLIGAN, Jun., Esq., seconded the resolution. He believed Bradford had hitherto thriven by the excellence of its plain goods; but if they would continue to progress as they had done, they must now pay equal attention to fancy goods. (Hear, hear.)

Mr. Ald. Rogers supported the resolution, which was carried unanimously.

Mr. Ald. Forbes was loudly cheered on rising to propose the next resolution, appointing a Committee to consider the suggestion. He expressed the great interest he felt in this important movement, and he was disposed to think that the worsted trade of Bradford was as yet but in its infancy. If, unfortunately, they should be led to defer the carrying out of the objects contemplated by the meeting, the time would not be far distant when they would be compelled by necessity to take them up. Every day that they deferred doing so, would render their position increasingly worse. As an old merchant, and one who had for many years taken the deepest interest in the welfare of the various classes composing this large community, he felt that this matter was one of primary importance, and one having the strongest possible claim upon their attention. It was his (Mr. Forbes's) firm conviction, that if they

could not successfully carry on this work upon the self-supporting principle, no aid any Government would ever give them would enable them to succeed. He found, from a Parliamentary paper, the last printed on the Schools of Design, which he held in his hand, that, although receiving Government aid, the School of Design in Manchester was 300l. in debt; that of Birmingham, 41l.; Glasgow, 4200l.; Sheffield, 315l.; Stoke (in the Potteries), 70l.; Nottingham, 60l.; Norwich, 67l.; Newcastle, 654l.; and so on. Not only were they in debt, but they were, to a greater or less extent, in a languishing state, and were not at all effecting the objects for which they were established. He thought these facts were quite sufficient to teach us that it was our duty to effect this object for ourselves without any extraneous aid. (Hear, hear.)

The Rev. J. H. RYLAND seconded the resolution, and said how glad the directors of the Mechanics' Institution would be to see the proposed Institute succeed; and if those who had the care of it would accept the offer, they would not, he believed, object to hand over the statues, about which so much had been said, to grace the walls of the new Institute.

Mr. Ald. MURGATROYD supported the resolution, which was carried nem. con.

John Rand, Esq., spoke strongly in favour of the proposed Institute, but said he was not so much alarmed at receiving pecuniary aid from Government or other parties as his friend Mr. Alderman Forbes appeared to be. He moved the next resolution,—"That the best thanks of this meeting are due and are hereby awarded to the Society of Arts for having originated the present movement, and in sending down a deputation; and also to the deputation for the able and interesting exposition of the views of the Council now given to the meeting."

JOHN RAWSON, Esq., seconded the resolution, which was carried nem. con.

On the motion of Edward Hallstone, Esq., seconded by Mr. Russell, the next resolution was carried unanimously,—"That a list of the names of persons willing to become shareholders in the proposed institution be now opened, and that the committee appointed by this meeting use their endeavours to obtain additional shareholders."

A vote of thanks to the Mayor for his services in the chair having been carried, the meeting broke up.

### EVENING MEETING.

The evening meeting took place at seven o'clock. It was attended chiefly by the working classes and members of the Mechanics' Institution. Addresses, explanatory of the objects of the new Institution, were delivered by Mr. Cole, General Pasley, and Mr. Yapp, also by Mr. T. Salt, Rev. J. H. Ryland, Mr. Dale, and others, but no resolutions on the subject were submitted.

Mr. Cole addressed the meeting on the great value of a power of drawing to all classes—to all artisans, to women, and even to children, however young, as it amused them and kept them quiet. He found drawing of the greatest value in the education of his own children, who began with a slate and slate-pencil as soon as they could sit up in a high chair at a table. They took great delight in it. He said,—"To draw correctly was the best evidence that you saw correctly, and by acquiring that power you immensely encourage accuracy of observation and sight." Mr. Cole called attention to an excellent work of "Drawing for Young Children," published by the Society for the Diffusion of Useful Knowledge.

General Pasley again pointed out how geometrical drawing was the first

step in educating the Sappers and Miners, whereby they had become competent to execute the elaborate maps of the Ordnance Survey.

Mr. YAPP was next introduced by the Mayor, as a gentleman that had been engaged as a lecturer at the Great Exhibition. He said, they had in London been talking for a long time about a great establishment for art-education amongst the people, but little real beginning had yet been made. They had come down to Bradford from the Society of Arts to give the people of that town the first opportunity of opening such an institution; and if Bradford did not take the initiative, and hold the first place afterwards, he had mistaken (Hear, hear.) The proposition was, to teach that sort of art which artisans and manufacturers wanted,—to form in Bradford a museum, a collection of plants,—and to establish a system of lectures and elementary Drawing Schools. (Applause.) Now, as regarded the museum, they had museums in a vast number of large towns. Some of these attracted concourses of visitors, whilst others, though containing an array of beautiful and valuable objects, were scarcely ever visited at all. People expressed surprise at this; but he felt none. He knew collections of sculpture, mineralogy, and natural history, which failed to become popular for the want of some vital principle to attract; and the people remained away from it one year's end to another. (Hear, hear.) But if they made the proposed museum part of the every-day life, and connected it with the every-day occupation of the people - if they managed it so that the people had a real interest in it - if they invited the people to take a part in its active management—if they had a catalogue which was always accessible and perfectly intelligible—if they made the museum useful, and intelligible, and valuable to all classes in that way, his word for it, that would never be a neglected institution. (Loud applause.) Now it was a museum of this practical sort which was proposed for Bradford—a museum of the goods produced in Bradford, and of the various colours produced by dyers, and the designs brought out by manufacturers during the last fifteen years—which was the age, he believed, of the fancy trade of Bradford. (Hear, hear.) Further, it would include the raw materials of Bradford and other districts producing textile fabrics; and the textile designs, not only of Bradford and the United Kingdom generally, but the designs of textile manufactures in all parts of the world. (Hear, hear.) If that museum were properly kept, and thrown open to the whole people of Bradford at all reasonable times and seasons, depend upon it that such a museum would never be thrown into disuse: it would be understood and valued by all the working people, the artisans, and the manufacturers of that large town, the very day the doors were opened. (Applause.) The next part was rather novel, and had been struck out by their friend, Mr. Cole; it was a collection of plants. Some persons might say, "Well, plants are very pretty," and there the end of it. But there it did not end. A collection of plants was a collection of ornaments, and a collection of the types of ornament. It would tend to correct that vitiated taste and abolish those abortions which in almost daily life met their eyes and offended men of taste. Art would teach them that, by a combination of the most common plants arranged artistically and in true taste, they might produce for the purposes of the Bradford manufactures a design equal in beauty and brilliancy to the best bouquet from tropical climes. (Hear, hear.) They might have their conservatory constructed in a cheap, yet elegant form, something like the Glass Palace, in which the students might go and study from nature, having in their immediate vicinity the opportunity of taking up their pencil or their chalk, and drawing those lines which the beautiful plant they had just studied had impressed upon their minds. If a boy or a youth would study in this way for a year or two, he would become an art-designer, which nine-tenths of the designers of the present day were not. Then as to the lectures, almost all managers of institutions complain that lectures do not pay; and he did not feel surprised, for lecturing as at present followed in the Mechanics' and other institutions was an unsysmatic thing. It was not likely that miscellaneous lecturing would ever succeed. But these lectures in the proposed institution would be class lectures, or lec-

tures like those given in their hospitals, colleges, and universities, one lecturer taking up the subject exactly where his predecessors left it. (Applause.) Well, then, the lectures being such as he had described, and delivered in a place where they had all the means and appliances of art-education around them, upon matters in use every day amongst them, and the subject of the lectures being the every-day occupation of the people, could they doubt their value and their attractiveness? (Loud applause.) With regard to the Elementary Drawing Schools, he need not add a word to what had been so well said by Mr. Cole. The Society of Arts, they had been told, were ready to assist them. The sort of assistance that Society would give was seen from one fact. He held in his hands a box containing ten colours, the commercial price of which was usually sixpence each, and the box also contained three camel-hair pencils, as well as some directions written by Mr. Cole. By the exertions of the Society of Arts, that box would be supplied for their school at a shilling, and in a short time the Society would have arrangements completed by which they would be enabled to obtain a supply of mathematical instruments good and equally cheap. (Applause.) The Institute would be self-supporting. (Applause.) By self-supporting, they did not merely say it was expected that the fees of the School would pay all expenses, but that the money which should be employed to establish the Institute would bring a fair interest. The capital would be raised by shares of 11. each, in eight instalments of half-a-crown, and their institution would be unusually clear of those questions which frequently created division in communities. It could not be said to be a manufacturers' institution only, nor an artisans' institution only, nor could any one of the inhabitants of Bradford say, "It is an institution which does not affect any interest." (Loud cries of "Hear, hear.") For of the 105,000 inhabitants of Bradford, there were 100,000 of them directly dependent upon manufactures, and the remaining 5000 were indirectly interested in them. (Cheers.) It was an institution which would have no political bearing whatever; it was not a class institution, nor could it be charged with sectarianism; it was essentially an institution for the benefit of, and accessible to, all the people. (Loud applause.) If Bradford was not the first to start such an institution, some other places not far off most probably would be. (Hear, hear.) As Bradford had created one of the greatest businesses in the shortest time, and as she could not go on producing new materials and novel fabrics continually, she had better make up her mind at once to take the road of art, and say to the world, "As we are famous for our fabrics we will be famous for our designs, and then we will not fear the competition of any country on the face of the earth, nor the rivalry of Halifax or any of our neighbours." (Loud cheers.)

After a vote of thanks to the Chairman, the meeting separated.

# APPENDIX A.

PROSPECTUS of an ART-MANUFACTURES' INSTITUTE, to be Established in Brad-FORD, on a Self-supporting and Commercial Principle. Capital £6000. In Shares of £1 each, to be paid by Eight Instalments of 2s. 6d. each. The liability to be limited to the amount of the Share.

The object of this Institution is to provide a direct and indirect Art-education in Bradford, for its Manufacturers, Merchants, Artisans, and all classes of its population;—and to accomplish this by various means, to be so modified and arranged that they shall be attractive and useful to all.

A suitable Building will have to be provided, which shall furnish space— 1st. For the collection, exhibition, and study of fine specimens of ornamental Manufactures woven in all materials, which shall be calculated to afford suggestions for improving the staple Manufactures of Bradford and its district,

in respect both of the forms and the harmonious colours of patterns.

2nd. For an ample Collection of Ornamental Plants, especially illustrative of those forms and harmonies of colour useful to Students and Practical Designers, and attractive at all seasons of the year to all persons, men, women, and children, although not directly Students in Art.

3rd. To enable periodical Lectures to be given on the use and application

3rd. To enable periodical Lectures to be given on the use and application of the staple Fabrics of Bradford and its district, for garments, hangings, &c.; also Lectures on the principles of design illustrated in other woven fabrics, and on the suggestions afforded by the Botanical Collection for patterns.

4th. For Drawing Schools, especially elementary, to be founded in connexion with the Society of Arts, and on the principles promulgated by the Society—to be open to all classes, of both sexes, in the evening, at a very low charge, when they may be used by Artisans, and in the morning, at a higher charge when they may be attended by the classes not engaged in workshops or manufactories.

Upon the importance of such Elementary Schools, the Society of Arts say, that the late Exhibition—

"Has materially strengthened a growing conviction that one of the most serious disadvantages under which ornamental British manufactures are produced, is the want of artistic knowledge and executive ability on the part of the artisans engaged in producing them. Every one competent to judge admits that the ornamental productions of the French exhibit much more ability, on the part of the French workman, in drawing, modelling, chasing, &c., than our own. The Council believe that a radical cure for many imperfections of British manufactures will be found in a much more enlarged and liberal system of art-education than at present exists,—an education which shall make the power of drawing at least as easy to be acquired as that of writing, and shall begin at an early period of life. The Council are convinced that there is hardly any handicraft in which a workman can be engaged, as a carpenter, mason, smith, tailor, &c., which would not be greatly improved by an ability to perceive the form of objects correctly, and represent it with precision.

"The Council are strongly impressed with the belief that our young artisans desire to obtain a knowledge of drawing, and they are aware of the difficulties which

at present impede the acquirement of this knowledge by them.

"The Council do not limit their appreciation of the advantages of drawing and modelling solely to those improved facilities in manufacture which they unquestionably afford to artisans; but trust that these useful arts will be found to occupy the young in pursuits tending in every way to their improvement, and to provide them with wholesome sources of instruction and enjoyment."

### The Society propose—

"1. To prepare a concise code of General Rules, which shall form a useful manual of management and instruction.

"2. To recommend a suitable trained instructor.

"3. To assist in the provision and loan, until the school is self-supporting, of suitable drawings, models, and examples, sufficient to be in themselves a useful exhibition; and, occasionally, of books of reference.

"4. To recommend a rotation of visitors well qualified to superintend the course

of instruction and the conduct of the school.

"5. To give, at their annual distribution, by the hand of their President, medals and rewards to those students who have distinguished themselves by ability and good conduct."

An Annual Meeting will be held, when an Exhibition will take place of the improvements which have been made during the year in the Manufactures of the district and of the works of the Students of the Schools, at which members of the Society of Arts from London will attend.

The Officers of the Institute are proposed to consist of a President; three Trustees; seven Directors; three Treasurers; one Secretary; and a Curator and Head Master.

# APPENDIX B.

£1142 0	(D.) Flankis, Studio (rist year)	ACTURES 160 0	(B.) LECTURES 25 0	ESTIMATED EXPENSES. (First Year.)  (A.) DRAWING SCHOOLS.  (A.) DRAWING SCHOOLS.  (A.) DRAWING SCHOOLS.  (Boyles, Examples, and Furniture
0	0000	0	0	0 2.
£1142 0 0	100 Annual Subscribers, gentlemen, at 10s. each	Vorks, &c.	Doduct one-third of fees for the master 238 6 8— 76 13 4  (B.) FROM LECTURES.  150 Persons per week, at 1d (reserved seats) 31 5 0  50 do. 3d (reserved seats) 25 0 0  50 Annual Subscribers at 10s. (on platform) 27 10 0	ESTIMATED RECEIPTS. (First Year. 50 Weeks.)  (A.) FROM THE DRAWING SCHOOLS.  (B.) DRAWING SCHOOLS.  (C) DRAWING SCHOOLS.  (C) Decrease at a days per week  (C) Dr. Higher Classes, at days per week  (C) Dr. Higher Classes, at day, per lesson (I think this may be too high), averaging 16 persons per Class, 4 days per week  (C) Dr. Higher Classes, at day, per lesson, say 30 persons  (C) Dr. Higher Class, 4 evenings per week  (D) Dr. Higher Class, 4 evenings

<sup>\*</sup> The balance might properly be applied in increasing the Collection.



The Council have to make the following announcements relative to the provision of materials for Art-Education:—

- 1. The Society's Shilling Colour Box, containing 10 best colours and 3 brushes, will be ready for delivery to Members in the course of about a month, and a specimen may be seen at the Society's House.
- 2. The Society's half-crown case and six-shilling case of Mathematical Instruments are in preparation, and specimens may be seen at the Society's house.
- 3. Arrangements are in progress for enabling Schools and Scholars to be supplied with various Chalks, Charcoal, Slates and Slate Pencil, Lead Pencils, Blackboards, Drawing Frames, Drawing Papers of a good quality, and at a moderate price.
- 4. General Sir Charles Pasley, K.C.B., has placed at the disposal of the Council, for the use of Schools, one hundred copies of his "Practical Geometry."
- 5. Mr. John Bell has undertaken to prepare a Series of Manuals on Elementary Instruction.
- 6. Copies and models of suitable objects, arranged in series and adapted for use by Carpenters, Masons, Weavers, and other branches of trade, and for general use by Female Scholars, are in course of preparation, and will be shortly issued.

### TENDERS FOR DRAWING MATERIALS.

To aid the Elementary Drawing and Modelling Schools about to be established in connexion with the Society, the Council desire to receive Specimens accompanied with the Retail and Wholesale Prices at which Manufacturers will be willing, on the recommendation of the Council, to supply such Schools with the following articles:—

- 1. Slates (without frames), or substitutes for Slates, and Slate-pencils.
- 2. Black-boards.
- 3. Samples of Cartridge and other Papers of various light tints, and of various qualities, especially of the cheapest kind, price per ream.
- 4. Drawing-boards, about 23 inches by 17 inches, with square edges, and warranted not to warp or open.
- 5. T Squares.
- 6. Chalks.
  - a. White, to be placed in a box, which may be sold retail for 1d.
  - b. Red, to be placed in a box, which may be sold retail for 1d.
  - c. Red Chalk, in cedar or reed, per dozen.
  - d. Charcoal, to be placed in a box, which may be sold retail for 1d.
  - e. Black, to be placed in a box, which may be sold retail for 1d.
  - f. Black Chalk, in cedar or reed, per dozen.
- 7. Lead Pencils, per dozen, of various degrees of hardness.
- 8. Pieces of India Rubber.
- 9. Pieces of Sponge.
- 10. Cakes of Indian Ink, per cake and per dozen.
- 11. Holders for Chalk.
- 12. Drawing Pins, per dozen.
- 13. Modelling Tools.
- 14. Geometrical Solids.

Specimens and Prices of the above-mentioned Articles to be sent to the Secretary, at the Society's House, Adelphi, on or before the 9th day of March, 1852.